

gether, both being commonly seen near the young one. The hooded-seals generally bring forth their young two or three weeks later than the harps, and they always occupy different districts, being generally found further to the north.

4. The "square-flipper" is described as being much larger than the hooded-seal. It is, however, very rare, and we did not see one, or hear of one being seen this season. I do not know what is the scientific name of this seal, and whether he has been described at all. Captain Furneaux told us that they were sometimes twelve or even fifteen feet long. It may be the *Phoca barbata* of Müller.—Vol. i. p. 308–312.

Newfoundland Woods.—The woods occupy indifferently the sides or even the summits of the hills and the valleys and lower lands. The trees consist for the most part of fir, spruce, birch, pine, and juniper, or larch; and in some districts the wych-hazel, the mountain-ash, the alder, the aspen, and some others are found. The character of the timber varies greatly, according to the nature of the subsoil and situation. In some parts, more especially where the woods have been undisturbed by the axe, trees of fair girth and height may be found; these, however, are either scattered individuals, or occur only in small groups. Most of the wood is of small and stunted growth, consisting chiefly of fir-trees about twenty or thirty feet high, and not more than three or four inches in diameter. These commonly grow so close together, that their twigs and branches interlace from top to bottom, and lying indiscriminately amongst them, there are innumerable old and rotten stumps and branches, or newly fallen trees, which, with the young shoots and brushwood, form a tangled and often impenetrable thicket. Every step through these woods is a matter of toil and anxiety, requiring constant vigilance to avoid falling, and constant labour to procure standing-room; climbing and creeping, and every mode of progression must be had recourse to, and new directions have constantly to be taken, in order to find the most practicable places through which to force a slow and tortuous way.—Vol. ii. p. 212–213.

PROCEEDINGS OF LEARNED SOCIETIES.

MICROSCOPICAL SOCIETY.

At a meeting of the Microscopical Society held November 16th, 1842, Prof. Lindley, President, in the Chair, a second paper was read by Arthur Hill Hassall, Esq., on the destruction of fruit by fungi. The author stated, that he had obtained more conclusive evidence of the influence of fungi in producing decay in fruit, from the fact that this decay can be communicated at will by inoculating sound fruit with the decayed matter containing the spawn of the fungi, and the effects of this inoculation become manifest in twenty-four hours. The author concluded by observing, that the decay of fruit might be retarded by coating the surface over with a varnish which would ex-

clude the influence of the atmosphere. Mr. Hassall then made a few observations on a peculiar form of spiral vessel which he had found in the Vegetable Marrow: it consisted of secondary fibres placed longitudinally across and within the spire of the vessel, and when the vessel was broken up or unravelled the longitudinal fibres were found to be split up into short pieces and to adhere to each turn of the spiral. A similar vessel, the author stated, had been noticed by Mr. Edwin Quekett in the *Canna bicolor* (a specimen of which was exhibited to the Meeting) and in the *Loasa contorta*, by Mr. Wilson in *Typha latifolia*, and by Schultz in *Urania speciosa*.

A letter was read from the Rev. J. B. Reade upon various matters. The author sent for inspection a specimen of Cocoa-nut cake, covered with a dense mass of minute filamentary fungi: the cake, which has been proposed as a substitute for oil-cake, he found to contain a large quantity of ammonia, and the fungi growing on it were remarkable for the quantity of nitrogen they contained. The author then directed the attention of the Society to a statement in Liebig's 'Organic Chemistry,' p. 114, that "the nitrogen in the air is applied to no use in the animal œconomy." Mr. Reade expressed his intention of hereafter showing that it is only a very limited view of the wisdom displayed in the composition of the atmosphere, which denies the agency of its larger constituent, and of endeavouring to prove that it tends directly to the production of many millions of pounds of carbonate of ammonia in the *breath of man*. Although the quantity of this agent in a single expiration may be too small to be "quantitatively ascertained by chemical analysis," it is discoverable by the microscope, as was afterwards shown in a specimen which accompanied the communication.

Specimens of microscopic animalcules, which had been sent up alive from Lewes by Edward Jenner, Esq., through the post, were exhibited by Mr. Ross. They had been enclosed, with the weeds they were attached to, in pieces of wet linen, covered over with tin foil.

BOTANICAL SOCIETY OF LONDON.

Oct. 7th, 1842.—Adam Gerard, Esq., in the Chair.

Mr. Daniel Stock presented specimens of *Thelephora caryophyllea* (new to Great Britain) discovered by him in August 1841, in a plantation at Bungay, Suffolk. This is distinct from *Thelephora terrestris* (syn. *Auricularia caryophyllea*, Bulliard) and *Thelephora laciniata* (syn. *Helvella caryophyllea*, Bolton, and *Auricularia caryophyllea*, Sowerby).

Mr. Stock also presented monstrosities collected by him at Earsham, Norfolk, of *Scolopendrium vulgare*, bearing two fronds, the one being barren and reniform, the other bearing sori and elongated, with the midrib spirally twisted; also of *Aspidium lobatum*, with the rachis much abbreviated and slightly recurved, pinnae numerous and overlapping; and of two abortive specimens of a rose, from his garden, both of which produced perfectly formed and leafy branches from the axis of the flowers.

Mr. John Thompson presented specimens of *Carex irrigua* (Smith), collected by him in Northumberland.

Mr. T. Twining, Jun., exhibited a large collection of cultivated specimens from Twickenham.

Read, the continuation of a paper from Mr. R. S. Hill, being "An Inquiry into Vegetable Morphology." Irregular metamorphoses of flowers are extremely common, and usually consist either of an actual multiplication of petals, or of the transformation of stamens and pistils into petals; the effect of these changes being the formation of double flowers, the impletion of which appears to take place in different ways in different plants. In most Icosandrous and Polyandrous plants, impletion appears to result almost entirely from the conversion of the stamens, and in some instances of the pistils, into petals; in the double varieties of *Ulex europæus* it results from the same change. In Oligandrous plants we usually find an actual multiplication of petals, as may be seen in the double stocks and wall-flowers of our gardens. Where the impletion is the result of this alteration of the essential floral organs, the plants are necessarily barren. Such, however, is not the case with the dahlia, aster and other plants, which belong to the Corymbiferous section of *Compositæ*; in these the impletion results, first, from the change of the tubular florets of the disc into ligulate florets, the same as those of the ray, as in the dahlia; and secondly, by simple enlargement and elongation of the tubular florets, as in the many varieties of the China aster. Such monstrosities, from the fact of the essential organs not being in any way implicated, are capable of perfectly impregnating their ovules. Thus a knowledge of the mode in which impletion occurs is of importance to the gardener, in order that he may be enabled to calculate on the possibility of producing new varieties by seed.

Dr. Lindley says, that "these changes always occur in the order of development, or from the circumference to the centre; that is to say, that the calyx is transformed into petals, petals into stamens, and stamens into ovaria; but that the reverse does not take place." In proof of this hypothesis he further says, "that if the metamorphosis took place from the centre to the circumference, or in a direction inverse to the order of development, it would not be easy to show the cause of the greater beauty of double flowers than of single; because the inevitable consequence of a reversed order of transformation would be, that the rich or delicate colour of the petals, upon which all flowers depend for their beauty, would be converted into the uniform green of the calyx. Such a change, therefore, instead of increasing the beauty of a flower and making it superior to its original, would tend to destroy its beauty altogether." Now, were this hypothesis correct, and founded on fact, what ought to be the condition in which we find the organs in double flowers? We ought surely to find the centre of the flower filled up with an increased number of pistils. But is this the case? It is plain it is not; indeed, were it the case, the beauty of a double flower would be most effectually destroyed. This theory must therefore fall to the ground,

and we must confess that we are unable to find any laws by which the order of transmutation in such monsters is governed. The aim and object with the cultivators of double flowers is, to convert all the floral organs into petals, and we generally refer to cultivation as the cause of flowers becoming double; further than this, we are ignorant of the causes of their impletion. They probably owe their origin at first to accidental circumstances, and afterwards the variety is carefully propagated by the methods usually adopted for that purpose. The two classes of vegetable functions, namely the vegetative and reproductive, notwithstanding their close connexion, appear to be performed in some degree in opposition the one to the other; thus any excessive development of the one class takes place at the expense of the other.

November 4th.—Hewett Cottrell Watson, Esq., V.P., F.L.S., in the Chair.

Mr. R. Ranking, F.L.S., presented a monstrous specimen of *Plantago coronopus*, collected at Hastings, showing the easy and natural transition from a spike to a raceme; also a specimen of *Dactylis glomerata*, in which the glumes were become foliaceous.

The Chairman presented a specimen of *Cnicus Forsteri*, which he said corresponded exactly with the cultivated specimen of the same species preserved in Smith's Herbarium. The specimen exhibited by Mr. Watson was also a cultivated one, the root having been found near Whitemoor Pond in Surrey, in June 1841, and flowering specimens of it exhibited before the Society last year. The wild specimens had from two to four flowers only in each stem, whilst the cultivated specimens had ten or a dozen each. Mr. Watson exhibited the specimens for the purpose of pointing out the differences between *Cnicus Forsteri* and *Cnicus pratensis*, branched specimens of the latter species having been in several instances mistaken for the former.

The commencement of a paper was read from Mr. G. Clark, of the Island of Mahé (communicated by Mr. H. W. Martin), "*On Lodoicea Sechellarum.*"

LINNÆAN SOCIETY.

March 15, 1842.—E. Forster, Esq., V.P., in the Chair.

Mr. R. H. Solly exhibited a Cabinet for Microscopic objects made of Cedar-wood, the specimens contained in which, consisting of thinly ground sections of fossil-wood cemented on glass, had become covered with a very adhesive varnish. Where the fossil-wood was quite sound, and the cement (probably of Canada Balsam) did not project beyond its edges, very little of the varnish was deposited; but where the fossil-wood was cracked or unsound, or where the cement projected beyond its edges, it was found in considerable quantity; and on the specimens not cemented to glass, it was deposited chiefly in the pores or cracks which had imbibed some of the oil used in polishing the surface. The cabinet was quite new when the specimens were placed in it, and Mr. Solly supposes that the air con-

tained in the drawers had become loaded with vapour from the Cedar-wood, which coming into contact with oil or resin combined with it to produce a varnish.

Read a paper "On *Edgeworthia*, a new genus of Plants of the Order *Myrsinææ*." By Hugh Falconer, M.D., Superintendent of the Hon. E. I. C.'s Botanic Garden at Saharunpore, communicated by J. F. Royle, M.D., F.L.S., &c.

Dr. Falconer refers this new genus to the Tribe *Theophrasteæ*, and characterizes it as follows :—

EDGEWORTHIA.

Calyx 5-partitus; laciniis obtusis imbricatis. *Corolla* hypogyna, subcampanulata; tubo brevi crasso, intùs squamis 5 adnatis acuminatis, cum limbi 5-partiti lobis acutis (in æstivatione contorto-imbricatis) alternantibus, instructo. *Stamina* 5, corollæ tubo inserta, ejus denique laciniis opposita, exserta; filamenta subulata, basi cum squamis confluentia; antheræ extrorsæ, versatiles, loculis longitudinaliter dehiscensibus. *Ovarium* 1-loculare; placenta basilaris, parva; ovula pauca, erecta, anatropa. *Stylus* elongatus, etiam in alabastro exsertus; stigma minutum, indivisum. *Drupa* mono- (rarò di-) sperma. *Semen* peltatum, hilo lato excavato umbilicatum; testa ossea. *Embryo* intra albumen (cartilagineum) ruminatum excentricus, transversè arcuatus; radícula infera. — *Arbuscula sempervirens*; foliis alternis extipulatis, solitariis v. fasciculatis, ellipticis, integerrimis, coriaceis, marginatis; ramis spinescentibus; pedicellis bracteolatis; floribus parvis subsessilibus in capitula axillaria subumbellata densè coacervatis, chloroleucis; drupâ eduli dulci.

Obs. Genus inter *Theophrasteas*, *Jacquinia* et *Theophrastæ* juxta characteres tribuales affine, sed ab utroque et a sociis albumine ruminato, necnon inflorescentiâ distinctum. Notatu dignissimum, stylum etiam in alabastro exsertum!

Edgeworthia buxifolia.

Hab. in collibus aridis Provinciarum Taxilæ et Peucelaotis in Bactriâ Inferiore; passim obvenit propè Peshawur, Cohaut et Attock, indigenis *Goorgoora* dicta. Floret Februario; fructus maturescit Julio. Semina dura globosa vulgò in monilia precatória conseruntur.

Dr. Falconer describes *Edgeworthia* as one of the most characteristic forms of Lower Affghanistan, where it grows associated with a species of *Dodonæa*, *Olea Laitoona*, a species of *Rhazya*, and an undescribed Asclepiadeous genus. To the latter, which he refers to the tribe of *Periploceæ*, he gives the name of *Campelepis*, with the following generic characters :—

CAMPELEPIS.

Corolla rotata, 5-fida; fauce coronatâ, squamis 5 cum segmentis alternantibus, brevibus, flexuoso-trilobis, confluentibus, medio aristatis, aristis filiformibus erectis apice uncinatis; tubo intùs squamulis totidem inclusis, laceris, patentibus, staminibus oppositis, instructo. *Filamenta* distincta, faucibus infra squamas inserta; antheræ sagittatæ, apiculo acuto terminatæ, dorso barbatae, basi stigmatis medio agglutinatae. *Massæ pollinis* solitariæ, granulosae, corpusculorum stigmatis appendiculis dilatatis applicitæ. *Stigma* dilatatum, muticum. *Folliculi* cylindracei, læves, divaricatissimi. *Semina* ad umbilicum comosa.—Frutex erectus, ramosissimus, glaber quasi aphyllus; foliis nempè squamæformibus, deci-

duis, remotis; cymis brevè pedunculatis, paucifloris; floribus parvis, coriaceis; corollæ laciniis intùs propè apicem barbatis, disco leprosis.
Campelepis viminea.

Hab. passim in Bactriâ Inferiore, propè Peshawur, Attock, &c.

April 5.—R. Brown, Esq., V.P., in the Chair.

Read the commencement of “A Catalogue of Spiders, either not previously recorded or little known as indigenous to Great Britain, with remarks on their Habits and Economy.” By John Blackwall, Esq., F.L.S., &c.

MISCELLANEOUS.

FILAGO GALLICA, LINN.

The Rev. W. L. P. Garnons, F.L.S., has had the good fortune to rediscover this plant in Essex. In the autumn of 1841 he gathered a single individual, and on the 12th of last October met with a considerable number of specimens in fields at Bere Church near Colchester.—C. C. B.

NEW BRITISH CARICES.

Through the kindness of their respective discoverers, I have been favoured with specimens of two species of *Carex*, which have not as yet found a place in the catalogue of British plants. 1. *C. paradoxa* (Willd.), found in Ireland—the exact place not stated—by D. Moore, Esq.: it is closely allied to *C. paniculata*, from which I believe it is to be distinguished by its much more strongly ribbed fruit, and by the convex faces of its triquetrous stems. It also is very similar to *C. teretiuscula*, from which it is separated by its strongly ribbed fruit, and the bulbous base of its style. 2. *C. Boeninghausiana* (Weihe), discovered near Hertford by the Rev. W. H. Coleman: closely allied to *C. remota* and *C. axillaris*, but easily distinguished from them by having the edges of its fruit fringed with minute teeth from the end of the beak quite to the base of the fruit itself.

I may take this opportunity of stating that *C. irrigua* (“Sm.” Hoppe), which was first detected by Mr. John Thompson at Muckle Moss, Ridley, Northumberland, has also been found at Terregles near Dumfries, by Mr. P. Gray. It is probably a common plant on quaking bogs, having been overlooked as *C. limosa*, to which it is very similar in appearance, differing by its broader leaves, scarcely striated fruit, and glumes without a central longitudinal green band.—C. C. B.

PUS-LIKE GLOBULES OF THE BLOOD.

Although the pus-like globules found in the blood of patients affected with various severe inflammatory and suppurative diseases are very like the pale globules now so well known as belonging to healthy blood, it often happens that the former globules differ manifestly from the latter.

In inflammatory affections the pus-like globules of the blood are generally rather larger, more irregular in size and form, and some-